

On page 13, line 9, replace "Necessary" with --necessary--.

On page 14, line 2, replace "poser" with --power--.

On page 20, line 25, replace "is subject" with --are subject--.

On page 20, line 25, replace "and has a memory" with --and have a memory--.

On page 20, line 28, replace "battery" with --batteries--.

On page 21, line 8, replace "t%" with --5%--.

On page 21, line 10, delete the second occurrence of "cycle".

On page 23, line 10, insert --secondary battery-- before "load 1".

On page 24, lines 5, 7, 12, 27, and 32 insert --secondary battery-- before "load 1".

On page 24, line 9, replace "batter" with --battery--.

On page 24, line 11, replace "batter" with --battery--.

On page 25, line 2, insert --secondary battery-- before "load 1".

On page 26, lines 2 and 4, insert --secondary battery-- before "load 1".

On page 26, line 28, replace "loads 5. When" with --loads 5. When--.

On page 27, line 8, replace "differencebetween" with --difference between--.

On page 27, line 9, replace "isvery" with -- is very--.

On page 27, line 28, replace "batteriesunder" with --batteries under--.

On page 28, lines 2, 6, 7, and 8, insert --secondary battery-- before "load 1".

On page 28, line 9, replace "unit 2to" with --unit 2 to--.

On page 28, line 10, replace "residualcapacity" with --residual capacity--.

On page 28, line 15, replace "isimpossible" with --is impossible--.

In the Claims:

D1 1. (once amended) A secondary battery [electric power] storage system for connection to a power system, the storage system comprising:

B5 a secondary battery connected to a secondary battery load;

a detecting device for detecting a residual electric power of said secondary battery;

a charge/discharge unit connected to the [a] power system [source] and to said secondary battery;

a control unit connected to said charge/discharge unit; and  
a signal line for transmitting information about [on] said secondary battery through said detecting device [load and to said secondary battery] to said control unit, wherein said control unit controls said charge/discharge unit on the basis of said information, wherein said information comprises measured values for determining residual electric power stored in the secondary battery [discharges electric power of said secondary battery to said load when a residual electric power is larger than a predetermined value, and when the residual electric power is smaller than the predetermined value, the electric power is discharged to said power system or said load through said charge/discharge unit, prior to charging of said secondary battery].

2. (once amended) A secondary battery [electric power] storage system according to claim 1, further comprising a plurality of loads, wherein the plurality of loads is connected to said charge/discharge unit [wherein said secondary battery is connected to a plurality of loads], and said plurality of loads is connected to said signal line, wherein said charge/discharge unit distributes [unitdistributes] electric power of said secondary battery to at least a load of said plurality of loads, wherein said information further comprises information about the operating condition of at least one load of said plurality of loads connected to the charge/discharge unit [among said loads when said residual electric power is larger than the predetermined value].

3. (once amended) A secondary battery [electric power] storage system according to claim 1, further comprising a plurality of loads, wherein the plurality of loads is connected to said charge/discharge unit, and said plurality of loads is connected to said signal line, wherein said charge/discharge unit distributes electric power of said secondary battery to at least a load of said plurality of loads and further comprising a plurality of electric power storage units, wherein the plurality of electric power storage units is connected to said charge/discharge unit, and the plurality of electric power storage units is connected to said signal line, wherein said charge/discharge unit distributes electric power of said secondary battery to at least a unit of said plurality of electric power storage units, wherein said information further comprises information about the operating condition of at least one load of said plurality of loads and the

operating condition of at least one electric power storage unit of said plurality of electric power storage units. [: a secondary battery connectable to a load; a charge/discharge unit connectable to the secondary battery, said charge/discharge unit being connectable to a power system and either a plurality of loads or a plurality of electric power storage units; a detecting device for detecting a residual electric power in the secondary battery; and a control unit for controlling the charge/discharge unit on the basis of information from the secondary battery and at least the loads or electric power storage units, wherein electric power in the secondary battery is discharged to at least one of the loads when the residual electric power is larger than the predetermined value, and the residual electric power is discharged to the power system, or to at least one of the loads or electric power storage units when the residual electric power is smaller than the predetermined value, prior to charging of the secondary battery.]

4. (once amended) A secondary battery [electric power] storage system according to claim 1, further comprising a plurality of electric power storage units, wherein the plurality of electric power storage units is connected to said charge/discharge units, and said plurality of electric power storage units is connected to said signal line, wherein said charge/discharge unit distributes electric power of said secondary battery to at least a unit of said plurality of electric power storage units, wherein said information further comprises information about the operating condition of at least one unit of said plurality of electric power storage units. [comprising: a secondary battery connected to a load; a charge/discharge unit connectable to the secondary battery, said charge/discharge unit being connectable to a power system and either a plurality of loads or a plurality of electric power storage units; a detecting device for detecting a residual electric power in the secondary battery; and a control unit for controlling the charge/discharge unit on the basis of information from the secondary battery and at least one of the loads or electric power storage units, wherein electric power in the secondary battery is discharged to at least one of the loads when the residual electric power is larger than the predetermined value, and the residual electric power is discharged to the power system or to at least one of the loads or electric power storage units when the residual electric power is smaller than the predetermined value, prior to charging of the secondary battery.]

*B*  
5. (once amended) A secondary battery [electric power] storage system according to claim 3 [4], wherein said secondary battery and said secondary battery load connected to the secondary battery are separable [charge/discharge unit is connected to either a plurality of loads or a electric power strage units, and said wiring for signaling for transmitting information on either said loads or said electric power strage units and said secondary battery to said control unit, wherein said charge/discharge unit distributes electric power of said secondary battery among said either said loads or said electric power strage units when said residual electric power is larger than the predetermined value].

*[*  
Please cancel ~~claim 6.~~

*7*  
7. (once amended) A secondary battery [electric power] storage system according to claim 1, wherein said control unit comprises a computer and wherein the [a] computer measures the amount of electric power charged into the secondary battery and the amount of electric power discharged from the secondary battery, and calculates the amount of residual electric power stored in the secondary battery.

*X*  
8. (once amended) A secondary battery [electric power] storage system according to claim 1, wherein said control unit comprises a computer and wherein the [a] computer measures the amount of electric power charged into the secondary battery and the amount of electric power discharged from the secondary battery, and calculates the amount of residual electric power stored in the secondary battery, and an indicating unit indicates the amount of residual electric power calculated by the computer.

*9*  
9. (once amended) A secondary battery [electric power] storage system according to claim 1, wherein the secondary battery comprises a battery selected from the group consisting of [is at least one of] a lead-acid battery, a lithium battery, a nickel-cadmium battery and a nickel-metal hydride battery.

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10. (once amended) A secondary battery [electric power] storage system according to claim 3 [1], wherein the charge/discharge unit comprises: a dc-ac conversion means, and a switching means for selectively connecting the power system to the secondary battery, [and] the plurality of [or] loads or [to] the plurality of electric power storage units.

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11. (once amended) A secondary battery [electric power] storage system according to claim 3, wherein the plurality of electric power storage units comprises at least a battery selected from the group consisting of [are at least] lead secondary batteries, lithium secondary batteries, nickel-cadmium secondary batteries, nickel-metal hydride secondary batteries, heat storage and heat exchanger type electric power storage systems and [or] superconducting type electric power storage systems.

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12. (once amended) A secondary battery [electric power] storage system for connection to a power system, the storage system comprising:

a secondary battery connected to a secondary battery load;

a charge/discharge unit connected [connectable] to the secondary battery, said charge/discharge unit connected [being connectable] to the [a] power system and either a plurality of loads or a plurality of electric power storage [strage] units;

a detecting device for detecting a residual electric power in the secondry battery; and

a control unit for controlling the charge/discharge unit on the basis of information from the secondary battery and at least one of the loads of the plurality of loads or at least one of the units of the plurality of electric power storage [strage] units, wherein a controller [that] receives information from at least either the secondary battery or the plurality of loads and controls the charge/discharge unit; a computer that measures the amount of electric power charged into and the amount of electric power discharged from the secondary battery, calculates the amount of residual electric power stored in the secondary battery, and comprises a memory for storing measured data of the secondary battery and arithmetic program information, and a controller for processing the information stored in the memory or information given thereto from external devices, and an [A/D] analog-to-digital converter through which information provided by the external devices is given to the controller[, electric

power in the secondary battery is discharged to at least one of the loads when the residual electric power is larger than the predetermined value, and the residual electric power is discharged to the power system or to at least one of the loads or electric power storage units when the residual electric power is smaller than the predetermined value, prior to charging of the secondary battery].

~~12~~ (once amended) A secondary battery [electric power] storage system according to claim ~~12~~, wherein the secondary battery, the computer and the analog-to-digital [A/D] converter are integrated.

~~13~~ (once amended) A secondary battery [electric power] storage system according to claim ~~12~~, further comprising: measuring means for measuring data on discharge history including discharge current data, discharge voltage data and discharge temperature data and on charge history including charge current data, charge voltage data and charge temperature data; and a computer that receives information from the measuring means.

~~14~~ (once amended) A secondary battery [electric power] storage system according to claim ~~12~~, wherein the memory [memory] stores information on a charging method specifying at least one of the intrinsic characteristics of the secondary battery including charging efficiency, discharging efficiency and temperature characteristic, and optimum [optimum] charge conditions including a maximum charge capacity, a charge current, a charge time, a charge voltage [voltage] and an upper limit voltage, and information on discharging method specifying at least one [of] optimum discharge condition[s] including a maximum discharge capacity, a discharge current, a discharge time, a discharge voltage and a lower limit voltage.

~~15~~ (once amended) A secondary battery [electric power] storage system according to claim ~~12~~, wherein the memory [unit] stores an arithmetic program for determining discharge capacity by integrating discharge current data given to the analog-to-digital [A/D] converter, wherein the [an] arithmetic program [for determining] determines charge capacity by integrating charge current data, [an arithmetic program for determining] and determines a

converted charge capacity [determined] by converting charge capacity in a real-time mode into available capacity at a discharging rate and a temperature condition when the discharge current data is received on the basis of a discharging [the discharaging] efficiency and a [the] temperature characteristic stored in the memory, and wherein a program calculates and indicates [for calculating and indicating] a residual capacity in a real-time mode by subtracting the discharge capacity determined in a real-time mode from the converted charge capacity determined in a real-time mode.

Please cancel claim 17

18. (once amended) A secondary battery storage system for connection to a power system, the storage system comprising a charge/discharge unit connected to the power system, and connected to at least either a plurality of loads or a plurality of electric power storage units and having connecting means to connect the charge/discharge unit to a secondary battery; wherein the charge/discharge unit is controlled by a controller on the basis of information received from the plurality of loads or the plurality of electric power storage units. [A secondary battery electric power storage system according to claim 17, wherein] further comprising an information transmitting means for interconnecting the controller and at least either the connecting means or the plurality of loads connected to the charge/discharge unit.

19. (once amended) A method of operating a secondary battery [electric power] storage system for connection to a power system, the storage system comprising:

a secondary battery connected to a secondary battery load;  
a detecting device for detecting a residual electric power of said secondary battery;  
a charge/discharge unit connected to the [a] power source and to said secondary battery;  
a control unit connected to said charge/discharge unit; and  
a signal line for transmitting information about [on said load and] said secondary battery through said detecting device to said control unit;  
the method comprising:

feeding a residual electric power of the secondary battery to the power system through the charge/discharge unit after an electric power stored in the secondary battery is discharged to the secondary battery load [wherein said charge/discharge unit discharges electric power of said secondary battery to said load when said residual electric power is larger than a predetermined value and when the residual electric power is smaller than the predetermined value, the electric power is discharged to said power system or said load through said charge/discharge unit, prior to charging of said secondary battery].

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20. (once amended) A method of operating a secondary battery [electric power] storage system for connection to a power system, the storage system comprising: a secondary battery connected to a secondary battery load, and a charge/discharge unit connected [connectable] to the [a] power [supply] system[, the secondary battery and connectable] and connected to at least either a plurality of loads or a plurality of electric power storage units; the method comprising: [wherein feeding the residual electric power remaining in the secondary battery after feeding power to the load through the charge/discharge unit]

feeding power from the secondary battery to at least either a load of a plurality of loads or a unit of a plurality of electric power storage units, depending on the residual electric power, [strage units ,when the residual electric power is larger than the predetermined] prior [value,peior] to charging [og] said secondary battery.

19  
21. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, further comprising [20,wherein] selecting a power receiving object and determining a feed power capacity on the basis of [at least one of] information about at least one of the surplus electric power stored in the secondary battery, [information about] the operating condition of the plurality of loads, or [and information about] the electric power storage condition of the plurality of electric power storage units; and feeding the surplus electric power to the selected power receiving object.

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22. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 21 [20], wherein the power receiving object is selected and the

power feed capacity is determined on the basis of the information about the surplus electric power stored in the secondary battery, [the information about] the operating condition of the plurality of loads, and [the information about] the electric power storage condition of the plurality of electric power storage units, after charging the secondary battery through the charge/discharge unit [with night period rate electric power, and the surplus electric power is fed to the selected power receiving object in day period rate hours].

*B1*

*21* 23. (once amended) A method of operating a secondary battery [electric power] storage system according to claim *20*, <sup>19</sup> further comprising [20,wherein] determining the operating condition of the plurality of electric power storage units after charging the secondary battery, and selecting a power receiving object on the basis of surplus electric power remaining after feeding residual electric power to the secondary battery load from the secondary battery [and the operating condition of the plurality of electric power storage units after charging the secondary battery through the charge/discharge unit with night period rate power]; and feeding electric power through the charge/discharge unit to at least one unit of the plurality of electric power storage units.

*[ ]*  
Please cancel claim 24.

*B8*

*22* 25. (once amended) A method of operating a secondary battery [electric power] storage system according to claim *20*, <sup>19</sup> further comprising [20,wherein] charging the secondary battery through the charge/discharge unit [with night period rate electric power]; selecting a power receiving object and determining power feed capacity on the basis of surplus electric power stored in the secondary battery after feeding electric power to the secondary battery load, determining the power storage condition of the plurality of electric power storage units or the operating condition of the plurality of loads; and feeding electric power from the secondary battery through the charge/discharge unit to the selected power receiving object [in day period rate hours].

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26. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, wherein the secondary battery [electric power] storage system is provided with a memory connected with the secondary battery, 18 wherein the method further comprises storing at least optimum discharge conditions for the secondary battery [are stored] beforehand in the memory, and feeding the surplus electric power of the secondary battery [is fed] through the charge/discharge unit in a mode conforming to the optimum discharge conditions.

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27. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, 18 further comprising determining [wherein] the available discharge capacity or the possible discharge time of the secondary battery for the next discharge cycle, estimated on the basis of the past discharge capacity[,] or the past discharge time and change of the discharge capacity, and discharging [the] surplus electric power [is discharged] through the charge/discharge unit according to the estimated available discharge capacity or the estimated possible discharge time.

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28. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, wherein the secondary battery [electric power] storage system is provided with a memory connected to the secondary battery, 18 and wherein the method further comprises storing at least information about optimum charge conditions for the secondary battery [is store] beforehand in the memory, and charging the secondary battery [is charged] through the charge/discharge unit in a mode conforming to the stored optimum charge conditions after discharging the surplus electric power from the secondary battery.

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29. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, 18 further comprising estimating [wherein] an available discharge capacity of the secondary battery for the next discharge cycle, [is estimated] after discharging the surplus electric power on the basis of the past charge capacity[,] or charge time and change in the charge capacity, and charging the secondary battery [is charged] through the charge/discharge unit in a mode conforming to the estimated charge condition.

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30. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, further comprising storing [wherein] the charge capacity of the secondary battery [is stored] in a memory, and estimating the future available discharge capacity and the cycle life of the secondary battery [are estimated] on the basis of the change of the charge capacity in the past charge and discharge cycles.

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31. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, wherein the secondary battery is at least either a nickel-cadmium battery or a nickel-metal hydride battery, and the method further comprises discharging an amount of electric power in the range of 95% to 100% of a discharge capacity which can be discharged in a mode conforming to the optimum discharge conditions among the available discharge capacity for the next discharge cycle of the secondary battery [is discharged] as surplus electric power, when the residual capacity is in the range of 0% to 85% of the charge capacity.

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32. (once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, wherein the secondary battery is a lithium battery, and the method further comprises discharging an amount of electric power in the range of 80% to 95% of a discharge capacity which can be discharged in a mode conforming to the optimum discharge conditions among the available discharge capacity for the next discharge cycle of the secondary battery [is discharged] as surplus electric power, when the residual capacity is in the range of 5% to 80% of the charge capacity.

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(once amended) A method of operating a secondary battery [electric power] storage system according to claim 20, [wherein, when] further comprising discharging [the] surplus electric power through the charge/discharge unit from the secondary battery after feeding residual electric power from the secondary battery to the secondary battery load, wherein said discharging [the discharge] of the surplus electric power [after day period rate hours] is stopped if the discharge of the surplus electric power has not been completed [in day period